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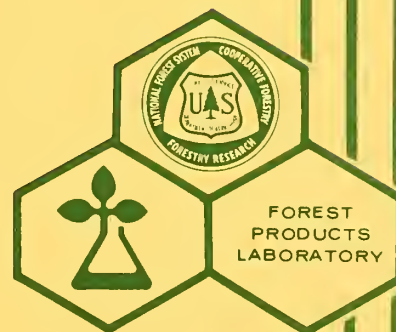
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PROPERTIES OF PULPS, PAPERS, PAPERBOARDS, HARDBOARDS, AND  
PARTICLEBOARDS MANUFACTURED IN OR IMPORTED INTO THE PHILIPPINES

By

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Table 1.--Properties<sup>1/</sup> of pulps manufactured in or imported  
into the Philippines

| Identifica-<br>tion     | Beating<br>time | Freeness<br>(Canadian<br>Standard) | Burst<br>factor | Tear<br>factor | Breaking<br>length | Apparent<br>density     | Bright-<br>ness<br>(Elrepho) |
|-------------------------|-----------------|------------------------------------|-----------------|----------------|--------------------|-------------------------|------------------------------|
|                         | <u>Min</u>      | <u>Ml</u>                          |                 |                | <u>M</u>           | <u>G/cm<sup>3</sup></u> | <u>Pct</u>                   |
| ABACA PULP              |                 |                                    |                 |                |                    |                         |                              |
| Philippines -<br>25,920 | 0               | 595                                | 79.3            | 431.7          | 9,655              | 0.54                    | --                           |
|                         | 10              | 380                                | 115.2           | 175.6          | 13,510             | .63                     | --                           |
|                         | 12              | 335                                | 117.8           | 168.9          | 13,515             | .64                     | --                           |
|                         | 16              | 275                                | 121.4           | 168.4          | 13,890             | .66                     | --                           |
| UNBLEACHED KRAFT PULPS  |                 |                                    |                 |                |                    |                         |                              |
| USA -<br>25,905         | 2               | 700                                | 21.3            | 270.5          | 4,425              | .61                     | --                           |
|                         | 15              | 610                                | 49.1            | 163.6          | 7,490              | .64                     | --                           |
|                         | 34              | 415                                | 71.8            | 128.6          | 7,835              | .67                     | --                           |
|                         | 46              | 240                                | 77.3            | 120.6          | 10,245             | .70                     | --                           |
| USA -<br>25,908         | 9               | 715                                | 36.4            | 292.6          | 5,840              | .62                     | --                           |
|                         | 35              | 580                                | 74.0            | 151.6          | 9,130              | .67                     | --                           |
|                         | 54              | 395                                | 85.1            | 133.8          | 10,375             | .70                     | --                           |
|                         | 65              | 250                                | 91.0            | 122.2          | 11,055             | .71                     | --                           |
| USA -<br>25,910         | 10              | 705                                | 32.0            | 189.7          | 5,455              | .58                     | --                           |
|                         | 35              | 470                                | 58.1            | 131.6          | 8,370              | .64                     | --                           |
|                         | 42              | 355                                | 59.9            | 120.5          | 8,715              | .66                     | --                           |
|                         | 48              | 265                                | 62.9            | 115.6          | 8,965              | .66                     | --                           |
| USA -<br>25,917         | 10              | 725                                | 23.3            | 292.1          | 5,245              | .55                     | --                           |
|                         | 47              | 610                                | 66.2            | 157.3          | 9,565              | .64                     | --                           |
|                         | 74              | 400                                | 79.0            | 139.8          | 10,990             | .67                     | --                           |
|                         | 91              | 240                                | 87.0            | 131.1          | 12,065             | .68                     | --                           |
| Canada -<br>25,907      | 0               | 700                                | 16.8            | 228.3          | 3,300              | .56                     | --                           |
|                         | 15              | 615                                | 59.4            | 145.5          | 8,150              | .66                     | --                           |
|                         | 34              | 470                                | 80.9            | 115.6          | 10,565             | .70                     | --                           |
|                         | 59              | 250                                | 92.9            | 107.5          | 11,670             | .73                     | --                           |
| Canada -<br>25,909      | 0               | 705                                | 14.9            | 242.5          | 3,100              | .58                     | --                           |
|                         | 20              | 600                                | 62.1            | 147.8          | 8,365              | .66                     | --                           |
|                         | 41              | 430                                | 79.8            | 113.7          | 10,450             | .71                     | --                           |
|                         | 65              | 240                                | 92.0            | 104.2          | 11,400             | .73                     | --                           |

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Table 1.--Properties<sup>1/</sup> of pulps manufactured in or imported into the Philippines--Con.

| Identifica-<br>tion          | Beating<br>time | Freeness<br>(Canadian<br>Standard) | Burst<br>factor | Tear<br>factor | Breaking<br>length | Apparent<br>density     | Bright-<br>ness<br>(Elrepho) |
|------------------------------|-----------------|------------------------------------|-----------------|----------------|--------------------|-------------------------|------------------------------|
|                              | <u>Min</u>      | <u>Ml</u>                          |                 |                | <u>M</u>           | <u>G/cm<sup>3</sup></u> | <u>Pct</u>                   |
| UNBLEACHED KRAFT PULPS--Con. |                 |                                    |                 |                |                    |                         |                              |
| Canada -<br>25,912           | 5               | 695                                | 21.8            | 259.4          | 4,435              | 0.57                    | --                           |
|                              | 21              | 600                                | 52.2            | 145.2          | 7,855              | .64                     | --                           |
|                              | 39              | 425                                | 68.9            | 128.6          | 9,645              | .68                     | --                           |
|                              | 54              | 260                                | 74.5            | 121.2          | 10,330             | .70                     | --                           |
| New Zealand -<br>25,906      | 5               | 720                                | 23.3            | 293.6          | 5,055              | .59                     | --                           |
|                              | 36              | 610                                | 67.1            | 137.9          | 10,145             | .65                     | --                           |
|                              | 54              | 425                                | 79.4            | 126.7          | 10,955             | .68                     | --                           |
|                              | 68              | 270                                | 88.3            | 118.0          | 11,680             | .70                     | --                           |
| Africa -<br>25,918           | 15              | 715                                | 35.4            | 197.3          | 6,115              | .58                     | --                           |
|                              | 37              | 555                                | 61.8            | 147.9          | 8,580              | .63                     | --                           |
|                              | 50              | 390                                | 70.3            | 134.4          | 10,005             | .66                     | --                           |
|                              | 60              | 265                                | 71.8            | 121.8          | 10,120             | .66                     | --                           |
| Africa -<br>25,919           | 20              | 705                                | 44.1            | 204.2          | 6,660              | .58                     | --                           |
|                              | 45              | 525                                | 62.5            | 163.4          | 9,050              | .62                     | --                           |
|                              | 55              | 375                                | 67.8            | 155.7          | 9,300              | .63                     | --                           |
|                              | 64              | 260                                | 71.0            | 150.6          | 9,530              | .65                     | --                           |
| UNBLEACHED SULFITE PULP      |                 |                                    |                 |                |                    |                         |                              |
| USA -<br>25,911              | 9               | 670                                | 1880            | 133.7          | 3,620              | .59                     | --                           |
|                              | 17              | 560                                | 27.8            | 106.7          | 5,020              | .64                     | --                           |
|                              | 24              | 460                                | 33.7            | 91.6           | 5,645              | .66                     | --                           |
|                              | 40              | 270                                | 43.2            | 73.9           | 7,045              | .73                     | --                           |
| BLEACHED KRAFT PULPS         |                 |                                    |                 |                |                    |                         |                              |
| New Zealand -<br>25,914      | 10              | 720                                | 31.4            | 291.4          | 5,285              | .61                     | 90.3                         |
|                              | 36              | 605                                | 67.6            | 158.2          | 8,970              | .65                     | --                           |
|                              | 57              | 410                                | 79.9            | 139.6          | 10,345             | .68                     | --                           |
|                              | 72              | 250                                | 87.4            | 123.6          | 11,020             | .70                     | --                           |
| Finland -<br>25,915          | 0               | 625                                | 8.8             | 51.5           | 2,740              | .57                     | 88.1                         |
|                              | 27              | 505                                | 30.9            | 77.4           | 6,170              | .68                     | --                           |
|                              | 49              | 350                                | 46.1            | 71.5           | 8,015              | .72                     | --                           |
|                              | 62              | 255                                | 52.7            | 66.6           | 8,350              | .76                     | --                           |



Table 1.--Properties<sup>1/</sup> of pulps manufactured in or imported  
into the Philippines--Con.

| Identifica-<br>tion      | Beating<br>time | Freeness<br>(Canadian<br>Standard) | Burst<br>factor | Tear<br>factor | Breaking<br>length | Apparent<br>density     | Bright-<br>ness<br>(Elrepho) |
|--------------------------|-----------------|------------------------------------|-----------------|----------------|--------------------|-------------------------|------------------------------|
|                          | <u>Min</u>      | <u>Ml</u>                          |                 |                | <u>M</u>           | <u>G/cm<sup>3</sup></u> | <u>Pct</u>                   |
| BLEACHED SULFITE PULP    |                 |                                    |                 |                |                    |                         |                              |
| USA -<br>25,916          | 6               | 685                                | 15.9            | 145.4          | 3,580              | 0.62                    | 86.2                         |
|                          | 17              | 565                                | 30.9            | 98.6           | 5,555              | .66                     | --                           |
|                          | 28              | 420                                | 41.4            | 82.8           | 6,770              | .70                     | --                           |
|                          | 40              | 260                                | 48.4            | 73.6           | 7,465              | .72                     | --                           |
| BLEACHED GROUNDWOOD PULP |                 |                                    |                 |                |                    |                         |                              |
| Finland -<br>25,913      | --              | 245                                | 7.1             | 32.6           | 2,290              | .44                     | 65.1                         |

1/Tests made according to TAPPI Standard Methods.



Table 2.--Properties of printing and writing papers manufactured in the Philippines

| Identifi-<br>cation             |      | Weight<br><br>Square<br>meter |     | Thick-<br>ness |      | Density<br><br>G/cm <sup>3</sup> |      | Bursting<br>strength |    | Tearing<br>resistance<br><br>MD <sup>3</sup> /CD <sup>3</sup> /G |      | Folding<br>endurance |       | Tensile<br>strength |      | Porosity |       |      |      | Opacity |      | Smoothness<br>(Bekk) |    | Scattering<br>coefficient |    | Brightness<br>(Elrepho) |    | Castor oil<br>penetration |    | Ash |    |     |  |
|---------------------------------|------|-------------------------------|-----|----------------|------|----------------------------------|------|----------------------|----|--|------|----------------------|-------|---------------------|------|----------|-------|------|------|---------|------|----------------------|----|---------------------------|----|-------------------------|----|---------------------------|----|-----|----|-----|--|
|                                 |      |                               |     |                |      |                                  |      |                      |    |  |      |                      |       |                     |      | Wire     |       | Felt |      |         |      |                      |    |                           |    |                         |    |                           |    |     |    |     |  |
|                                 |      |                               |     |                |      |                                  |      |                      |    |  |      |                      |       |                     |      |          |       |      |      |         |      |                      |    |                           |    |                         |    |                           |    |     |    |     |  |
|                                 |      |                               |     |                |      |                                  |      |                      |    |  |      |                      |       |                     |      |          |       |      |      |         |      |                      |    |                           |    |                         |    |                           |    |     |    |     |  |
| G                               |      | Lb                            |     | Mils           |      | G/cm <sup>3</sup>                |      | Pts                  |    | G  |      | MD                   |       | CD                  |      | Pw       |       | Sec  |      | Pct     |      | Sec                  |    | Pct                       |    | Sec                     |    | Pct                       |    | Sec |    | Pct |  |
| G                               |      | Lb                            |     | Mils           |      | G/cm <sup>3</sup>                |      | Pts                  |    | G  |      | MD                   |       | CD                  |      | Pw       |       | Sec  |      | Pct     |      | Sec                  |    | Pct                       |    | Sec                     |    | Pct                       |    | Sec |    | Pct |  |
| Sheet properties <sup>1</sup> / |      |                               |     |                |      |                                  |      |                      |    |  |      |                      |       |                     |      |          |       |      |      |         |      |                      |    |                           |    |                         |    |                           |    |     |    |     |  |
| NEWSPRINT                       |      |                               |     |                |      |                                  |      |                      |    |  |      |                      |       |                     |      |          |       |      |      |         |      |                      |    |                           |    |                         |    |                           |    |     |    |     |  |
| J-25,931                        | 57.4 | 35.2                          | 5.2 | 0.43           | 5.4  | 33.8                             | 35.7 | 2                    | 1  | 8.02   | 4.59 | 9.4                  | 10.5  | 98.8                | 17.1 | 1.9      | 460.8 | 36.3 | 36.1 | --      | --   | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- | --  |  |
| O-25,932                        | 57.0 | 35.0                          | 3.8 | .60            | 11.4 | 35.6                             | 34.1 | 7                    | 9  | 2.90   | 2.13 | 36.6                 | 37.3  | 96.6                | 17.4 | 11.5     | 430.6 | 40.0 | 44.1 | --      | --   | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| B-25,933                        | 53.4 | 32.8                          | 4.6 | .46            | 5.6  | 26.9                             | 26.4 | 2                    | 1  | 8.02   | 5.00 | 6.8                  | 6.4   | 95.9                | 10.4 | 13.0     | 561.1 | 49.2 | 50.4 | --      | --   | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| B-25,934                        | 53.4 | 32.8                          | 4.3 | .49            | 8.2  | 31.3                             | 31.8 | 6                    | 2  | 3.00   | 1.63 | 12.1                 | 11.1  | 94.5                | 13.1 | 12.4     | 531.4 | 49.3 | 49.2 | --      | --   | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| TELEPHONE DIRECTORY             |      |                               |     |                |      |                                  |      |                      |    |  |      |                      |       |                     |      |          |       |      |      |         |      |                      |    |                           |    |                         |    |                           |    |     |    |     |  |
| B-25,958                        | 36.9 | 22.6                          | 2.8 | .53            | 8.6  | 15.9                             | 23.3 | 19                   | 3  | 10.5   | 4.4  | 25.1                 | 28.5  | 80.5                | 21.0 | 31.6     | 491   | 54.4 | 53.1 | --      | --   | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| B-25,957                        | 38.9 | 23.8                          | 3.2 | .49            | 6.7  | 20.2                             | 31.9 | 12                   | 1  | 8.4  | 3.4  | 8.4                  | 7.5   | 83.2                | 22.8 | 25.2     | 575   | --   | --   | --      | --   | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| MIMEO BOND                      |      |                               |     |                |      |                                  |      |                      |    |  |      |                      |       |                     |      |          |       |      |      |         |      |                      |    |                           |    |                         |    |                           |    |     |    |     |  |
| A-25,935                        | 62.8 | 16.7                          | 4.0 | .63            | 20.2 | 34.4                             | 36.8 | 24                   | 22 | 19.3   | 14.0 | 132.5                | 133.8 | 80.2                | --   | --       | --    | 74.7 | 74.6 | 300+    | 9.1  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| D-25,950                        | 72.0 | 19.1                          | 4.7 | .61            | 11.5 | 40.4                             | 38.0 | 3                    | 3  | 14.1   | 8.5  | 4.1                  | 4.5   | 92.2                | --   | --       | --    | 70.1 | 69.6 | 60      | 7.5  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| D-25,949                        | 72.3 | 19.2                          | 4.3 | .66            | 15.0 | 28.0                             | 27.4 | 2                    | 2  | 19.5   | 11.8 | 11.0                 | 16.3  | 91.4                | --   | --       | --    | 70.4 | 69.4 | 80      | 4.3  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| H-25,953                        | 68.6 | 18.3                          | 6.3 | .43            | 8.1  | 28.2                             | 33.2 | 2                    | 1  | 12.3   | 6.0  | 15.5                 | 14.9  | 97.8                | --   | --       | --    | 39.0 | 39.6 | 200     | 3.4  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| BOND                            |      |                               |     |                |      |                                  |      |                      |    |  |      |                      |       |                     |      |          |       |      |      |         |      |                      |    |                           |    |                         |    |                           |    |     |    |     |  |
| L-25,954                        | 53.9 | 14.3                          | 3.4 | .63            | 11.0 | 38.8                             | 38.8 | 12                   | 5  | 12.8   | 6.3  | 18.7                 | 21.8  | 94.4                | --   | --       | --    | 53.6 | 53.3 | 150     | 7.5  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| L-25,955                        | 57.2 | 15.2                          | 3.4 | .66            | 8.9  | 39.2                             | 42.0 | 5                    | 2  | 9.8  | 5.0  | 11.2                 | 11.3  | 87.4                | --   | --       | --    | 76.0 | 76.5 | 80      | 9.9  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| A-25,936                        | 52.9 | 14.1                          | 3.2 | .64            | 14.6 | 30.6                             | 30.4 | 10                   | 16 | 11.6   | 10.1 | 131.6                | 115.2 | 74.2                | --   | --       | --    | --   | --   | 300+    | 7.4  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| A-25,938                        | 54.5 | 14.5                          | 2.9 | .73            | 16.1 | 25.4                             | 27.8 | 26                   | 16 | 16.2   | 12.7 | 157.3                | 154.4 | 73.7                | --   | --       | --    | 75.5 | 75.2 | 300+    | 8.8  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| G-25,951                        | 56.0 | 14.9                          | 3.6 | .61            | 8.5  | 53.4                             | 46.8 | 7                    | 3  | 10.7   | 6.0  | 11.7                 | 12.7  | 89.0                | --   | --       | --    | 75.6 | 76.3 | 100     | 14.7 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| C-25,945                        | 56.1 | 14.9                          | 2.8 | .78            | 16.0 | 30.0                             | 36.6 | 36                   | 12 | 17.5   | 7.8  | 300+                 | 300+  | 87.9                | --   | --       | --    | 85.4 | 85.2 | 300+    | 14.2 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| C-25,956                        | 58.0 | 15.4                          | 3.3 | .69            | 13.0 | 46.4                             | 45.2 | 12                   | 8  | 12.3   | 6.9  | 36.5                 | 24.9  | 87.3                | --   | --       | --    | 74.9 | 73.2 | 155     | 10.6 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| A-25,937                        | 74.3 | 19.8                          | 3.8 | .77            | 27.7 | 36.6                             | 43.8 | 36                   | 16 | 24.8   | 15.5 | 300+                 | 300+  | 82.0                | --   | --       | --    | 69.6 | 69.4 | 300+    | 3.6  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| C-25,942                        | 72.0 | 19.2                          | 3.9 | .73            | 18.2 | 41.6                             | 49.6 | 40                   | 11 | 18.4   | 9.0  | 300+                 | 300+  | 92.0                | --   | --       | --    | 84.2 | 83.7 | 300+    | 15.5 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| C-25,944                        | 71.3 | 19.0                          | 3.7 | .76            | 20.8 | 48.4                             | 59.0 | 88                   | 15 | 24.6   | 9.0  | 300+                 | 300+  | 90.7                | --   | --       | --    | 82.9 | 82.4 | 300+    | 15.6 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| D-25,946                        | 72.0 | 19.2                          | 4.0 | .70            | 12.0 | 25.4                             | 28.8 | 2                    | 2  | 15.1   | 8.1  | 12.1                 | 8.9   | 92.6                | --   | --       | --    | 71.9 | 72.7 | 75      | 6.7  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| D-25,947                        | 72.9 | 19.4                          | 4.0 | .72            | 14.7 | 30.2                             | 29.6 | 1                    | 1  | 16.1   | 12.0 | 14.9                 | 16.2  | 89.5                | --   | --       | --    | 74.0 | 74.0 | 100     | 5.6  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| G-25,952                        | 69.5 | 18.5                          | 4.1 | .67            | 14.9 | 58.2                             | 62.4 | 15                   | 8  | 17.3   | 9.4  | 28.4                 | 31.4  | 93.6                | --   | --       | --    | 73.7 | 73.7 | 145     | 11.7 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| C-25,943                        | 63.3 | 16.8                          | 3.3 | .76            | 17.8 | 43.8                             | 45.2 | 25                   | 18 | 17.3   | 9.8  | 85.1                 | 85.8  | 89.9                | --   | --       | --    | 83.5 | 82.9 | 300+    | 15.2 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| D-25,948                        | 60.3 | 16.0                          | 3.6 | .67            | 10.2 | 22.2                             | 23.2 | 1                    | 1  | 12.9   | 7.7  | 8.5                  | 5.8   | 86.9                | --   | --       | --    | 71.7 | 72.3 | 42      | 3.8  | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- |     |  |
| AIRMAIL BOND                    |      |                               |     |                |      |                                  |      |                      |    |  |      |                      |       |                     |      |          |       |      |      |         |      |                      |    |                           |    |                         |    |                           |    |     |    |     |  |
| C-25,939                        | 34.3 | 9.1                           | 2.0 | .68            | 8.5  | 15.2                             | 19.3 | 20                   | 5  | 10.5   | 4.7  | 111.5                | 101.0 | 74.0                | --   | --       | --    | 81.5 | 81.6 | 300+    | 15.9 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- | --  |  |
| C-25,940                        | 30.2 | 8.0                           | 1.8 | .65            | 9.0  | 14.2                             | 14.6 | 16                   | 7  | 9.2  | 4.6  | 63.3                 | 70.8  | 69.7                | --   | --       | --    | 81.1 | 81.0 | 300+    | 15.8 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- | --  |  |
| C-25,941                        | 36.0 | 9.6                           | 1.9 | .73            | 11.4 | 19.7                             | 22.0 | 28                   | 10 | 10.2   | 5.4  | 108.1                | 124.7 | 73.1                | --   | --       | --    | 83.6 | 83.3 | 300+    | 12.9 | --                   | -- | --                        | -- | --                      | -- | --                        | -- | --  | -- | --  |  |

1/Tests made according to TAPPI Standard Methods except as noted.

2/Trade size for the bond papers is 500 sheets, 17 by 22 inches, and for the other papers it is 500 sheets, 24 by 36 inches.

3/MD = Machine direction and CD = Cross direction.



Table 3.--Properties of towel, tissue, napkin, and cigarette papers manufactured in the Philippines

| Identification | Sheet properties <sup>1/</sup> |      |        |                   |          |      |                                     |      |            |      |                        |      |          |         |         |      |
|----------------|--------------------------------|------|--------|-------------------|----------|------|-------------------------------------|------|------------|------|------------------------|------|----------|---------|---------|------|
|                | Weight                         |      | Thick- |                   | Bursting |      | Tensile                             |      | Brightness |      | Water                  |      | Softness |         | Stretch |      |
|                | Square 24 by 36                |      | ness   |                   | strength |      | Dry                                 |      | (Elrepho)  |      | absorbency             |      | (Clark)  |         |         |      |
|                | meter                          |      | - 500  |                   |          |      | MD <sup>2/</sup> / CD <sup>2/</sup> |      | Wire       |      | (0.1 cm <sup>3</sup> ) |      | Wire     |         | MD      |      |
|                | G                              | Lb   | Mils   | G/cm <sup>3</sup> | Pts      | Piw  | Piw                                 | Piw  | Pct        | Pct  | Sec                    | Pct  | Felt     | Overall | MD      | CD   |
| TOWEL          |                                |      |        |                   |          |      |                                     |      |            |      |                        |      |          |         |         |      |
| Q-25,996       | 45.9                           | 28.2 | 6.3    | 0.29              | 15.1     | 1.18 | 1.01                                | 0.16 | 0.15       | 42.1 | 42.6                   | 300+ | 33.4     | 11.8    | 19.8    | 9.8  |
| G-25,990       | 50.2                           | 30.8 | 5.1    | .39               | 15.9     | 2.08 | .87                                 | .36  | .21        | 69.0 | 69.4                   | 130  | 50.3     | 16.8    | 29.1    | 12.7 |
| G-25,987       | 16.1                           | 9.9  | 2.9    | .22               | 5.3      | .19  | .04                                 | .02  | --         | 81.6 | 81.4                   | 300+ | 344.9    | 420.3   | 380.7   | 12.1 |
| TISSUE         |                                |      |        |                   |          |      |                                     |      |            |      |                        |      |          |         |         |      |
| K-25,993       | 15.1                           | 9.3  | 2.4    | .24               | 14.0     | .37  | .06                                 | .01  | --         | --   | --                     | 90   | 403.8    | 464.2   | 432.9   | 17.0 |
| K-25,991       | 15.8                           | 9.7  | 2.7    | .23               | 9.2      | .27  | .07                                 | .01  | --         | 84.2 | 84.1                   | 50   | 469.1    | 469.1   | 469.1   | 36.5 |
| G-25,988       | 15.4                           | 9.5  | 2.8    | .22               | 9.1      | .38  | .05                                 | .08  | --         | --   | --                     | 300+ | 465.6    | 465.6   | 465.6   | 20.7 |
| Q-25,995       | 29.3                           | 18.0 | 3.3    | .35               | 12.7     | .59  | .39                                 | .03  | --         | 72.6 | 72.4                   | 140  | 278.5    | 59.3    | 128.5   | 15.1 |
| G-25,986       | 16.3                           | 10.0 | 2.6    | .25               | 6.8      | .26  | .08                                 | .01  | --         | --   | --                     | 300+ | 460.6    | 460.6   | 460.6   | 9.9  |
| NAPKIN         |                                |      |        |                   |          |      |                                     |      |            |      |                        |      |          |         |         |      |
| K-25,992       | 22.4                           | 13.8 | 3.9    | .23               | 13.7     | .63  | .13                                 | .05  | --         | 84.9 | 84.8                   | 40   | 272.3    | 162.6   | 210.4   | 27.3 |
| G-25,989       | 23.9                           | 14.7 | 3.5    | .27               | 9.5      | .47  | .16                                 | .05  | --         | 80.0 | 79.8                   | 160  | 212.7    | 168.9   | 189.5   | 20.5 |
| CIGARETTE      |                                |      |        |                   |          |      |                                     |      |            |      |                        |      |          |         |         |      |
| K-25,994       | 21.9                           | 13.4 | 1.4    | .63               | 51.9     | 2.20 | 1.12                                | .13  | .06        | 95.1 | 95.3                   | --   | ---      | ---     | ---     | ---  |

<sup>1/</sup>Tests were made according to TAPPI Standard Methods except as noted.  
<sup>2/</sup>MD = Machine direction; CD = Cross direction



Table 4.--Properties of corrugating medium and linerboard manufactured in the Philippines

| Identification |       | Sheet properties <sup>1/</sup> |      |                |                   |                      |                       |                  |                      |                 |                                  | Tensile strength <sup>2/</sup> |      |         |                     |                          |                     |                              |                              |                         |       | Concora liner test |     |      |     |
|----------------|-------|--------------------------------|------|----------------|-------------------|----------------------|-----------------------|------------------|----------------------|-----------------|----------------------------------|--------------------------------|------|---------|---------------------|--------------------------|---------------------|------------------------------|------------------------------|-------------------------|-------|--------------------|-----|------|-----|
|                |       | Weight                         |      | Thick-<br>ness | Density           | Bursting<br>strength | Tearing<br>resistance |                  | Folding<br>endurance |                 | Porosity<br>(1/4-in.<br>orifice) | Ring crush                     |      | Concora | Maximum<br>strength | Modulus of<br>elasticity |                     | Strain-to-<br>failure        |                              | Pycnometer<br>thickness |       |                    |     |      |     |
|                |       |                                |      |                |                   |                      | MD <sup>3/</sup>      | CD <sup>3/</sup> | MD                   | CD              |                                  | MD                             | CD   |         |                     | MD                       | CD                  | MD                           | CD                           |                         | MD    |                    |     | CD   | Pct |
|                |       | G                              | Lb   | Mils           | G/cm <sup>3</sup> | Pts                  | G                     | G                | Double<br>Folds      | Double<br>Folds | Sec/<br>100 cm <sup>3</sup>      | Lb                             | Lb   | Lb      | Lb                  | Lb/in. <sup>2</sup>      | Lb/in. <sup>2</sup> | Lb/1,000<br>in. <sup>2</sup> | Lb/1,000<br>in. <sup>2</sup> | Pct                     | Pct   |                    |     | Mils |     |
|                |       | CORRUGATING MEDIUM             |      |                |                   |                      |                       |                  |                      |                 |                                  |                                |      |         |                     |                          |                     |                              |                              |                         |       |                    |     |      |     |
| Q-25,926       | 125.0 | 25.6                           | 7.4  | 0.66           | 30.2              | 97.2                 | 109.2                 | 41               | 22                   | 300+            | 45.2                             | 36.5                           | 41.0 | 4,440   | 2,980               | 689                      | 402                 | 1.49                         | 2.92                         | 6.5                     | ---   | ---                | --- |      |     |
| X-25,927       | 126.8 | 26.0                           | 10.3 | .49            | 33.1              | 115.2                | 115.6                 | 112              | 41                   | 200             | 49.2                             | 35.0                           | 56.6 | 4,520   | 2,190               | 684                      | 242                 | 1.62                         | 4.09                         | 7.9                     | ---   | ---                | --- |      |     |
| Y-25,928       | 127.0 | 26.0                           | 7.9  | .64            | 20.6              | 117.6                | 126.4                 | 35               | 9                    | 135             | 32.3                             | 27.1                           | 24.6 | 3,620   | 2,040               | 660                      | 309                 | 1.08                         | 1.69                         | 6.5                     | ---   | ---                | --- |      |     |
| 3-25,929       | 128.3 | 26.3                           | 8.9  | .57            | 37.5              | 113.2                | 118.8                 | 159              | 86                   | 180             | 60.3                             | 43.5                           | 60.5 | 5,560   | 2,770               | 851                      | 354                 | 1.48                         | 2.37                         | 7.3                     | ---   | ---                | --- |      |     |
| 3-25,930       | 159.1 | 32.6                           | 11.5 | .54            | 49.2              | 114.4                | 136.4                 | 146              | 50                   | 300+            | 86.4                             | 63.9                           | 81.4 | 5,660   | 2,740               | 1,014                    | 336                 | 1.64                         | 3.36                         | 9.5                     | ---   | ---                | --- |      |     |
| LINERBOARD     |       |                                |      |                |                   |                      |                       |                  |                      |                 |                                  |                                |      |         |                     |                          |                     |                              |                              |                         |       |                    |     |      |     |
| 6-25,923       | 186.3 | 38.2                           | 10.5 | .70            | 72.0              | 162.4                | 185.6                 | 249              | 56                   | --              | 86.8                             | 69.7                           | --   | 5,770   | 2,590               | 941                      | 343                 | 1.54                         | 2.41                         | 10.3                    | 66.6  | 37.1               | --- |      |     |
| 3-25,924       | 189.8 | 38.9                           | 11.5 | .65            | 69.2              | 229.6                | 262.4                 | 371              | 187                  | --              | 97.4                             | 73.1                           | --   | 7,510   | 3,380               | 1,379                    | 365                 | 1.26                         | 4.55                         | 10.0                    | 73.2  | 35.6               | --- |      |     |
| 7-25,922       | 202.1 | 41.4                           | 10.5 | .76            | 94.0              | 212.8                | 255.8                 | 1,339            | 266                  | --              | 110.3                            | 79.5                           | --   | 8,980   | 3,540               | 1,544                    | 331                 | 1.75                         | 4.63                         | 9.9                     | 83.3  | 36.8               | --- |      |     |
| 3-25,925       | 342.3 | 70.2                           | 19.5 | .69            | 139.5             | 436.8                | 520.0                 | 2,939            | 1,826                | --              | 146.8                            | 115.2                          | --   | 7,520   | 3,000               | 1,091                    | 362                 | 1.67                         | 3.62                         | 18.1                    | 144.8 | 86.1               | --- |      |     |

<sup>1/</sup>Tests were made according to TAPPI Standard Methods except as noted. The water absorbency (0.1 cm<sup>3</sup>) on all sheets was in excess of 300 seconds.

<sup>2/</sup>Tests made with a universal tester equipped with an electrical load cell.

<sup>3/</sup>MD = Machine direction and CD = Cross direction.



Table 5.--Properties of miscellaneous types of papers manufactured in or imported into the Philippines

| Identification |  | Sheet properties <sup>2/</sup> |                             |                |         |                      |                       |       |                      |                   |                     |                 |          |       |         |                      |      |                         |      |                           |                        |              |      |      |     |            |     |     |     |             |     |     |  |
|----------------|--|--------------------------------|-----------------------------|----------------|---------|----------------------|-----------------------|-------|----------------------|-------------------|---------------------|-----------------|----------|-------|---------|----------------------|------|-------------------------|------|---------------------------|------------------------|--------------|------|------|-----|------------|-----|-----|-----|-------------|-----|-----|--|
|                |  | Weight                         |                             | Thick-<br>ness | Density | Bursting<br>strength | Tearing<br>resistance |       | Folding<br>endurance |                   | Tensile<br>strength |                 | Porosity |       | Opacity | Smoothness<br>(Bekk) |      | Brightness<br>(Elrepho) |      | Castor oil<br>penetration | Wax pick<br>(Dennison) | Ash          |      |      |     |            |     |     |     |             |     |     |  |
|                |  | Square<br>meter                | Trade<br>size <sup>3/</sup> |                |         |                      | MD                    |       | CD                   |                   | Double<br>folds     | Double<br>folds | PiW      | CD    |         | Wire                 |      | Felt                    |      |                           |                        |              | Wire | Felt |     |            |     |     |     |             |     |     |  |
|                |  |                                |                             |                |         |                      | G                     | Lb    | Mils                 | G/cm <sup>3</sup> |                     |                 |          |       |         | G                    | CD   | G                       | CD   |                           |                        |              |      |      | Sec | Pct        | Sec | Pct | Sec | Pct         | Sec | Pct |  |
| BOOK PAPER     |  |                                |                             |                |         |                      |                       |       |                      |                   |                     |                 |          |       |         |                      |      |                         |      |                           |                        | OFFSET PAPER |      |      |     | ONION SKIN |     |     |     | BIBLE PAPER |     |     |  |
| H-25,997       |  | 59.2                           | 40.0                        | 4.0            | 0.58    | 12.5                 | 23.6                  | 23.2  | 4                    | 5                 | 7.4                 | 14.9            | 47.8     | 51.3  | 78.9    | 3.2                  | 4.0  | 67.5                    | 66.7 | 300+                      | 12                     | 7.9          |      |      |     |            |     |     |     |             |     |     |  |
| Korea -        |  |                                |                             |                |         |                      |                       |       |                      |                   |                     |                 |          |       |         |                      |      |                         |      |                           |                        |              |      |      |     |            |     |     |     |             |     |     |  |
| 25,963         |  | 69.8                           | 47.1                        | 3.6            | .77     | 14.5                 | 30.6                  | 31.4  | 8                    | 6                 | 16.0                | 9.7             | 13.6     | 13.5  | 85.8    | 27.4                 | 24.5 | 77.5                    | 80.2 | 55                        | 10A                    | 21.5         |      |      |     |            |     |     |     |             |     |     |  |
| G-25,961       |  | 70.8                           | 47.8                        | 3.7            | .76     | 18.8                 | 34.4                  | 63.4  | 69                   | 17                | 24.8                | 10.6            | 195.4    | 191.7 | 92.0    | 29.0                 | 25.6 | 78.6                    | 78.8 | 300+                      | 10A                    | 14.8         |      |      |     |            |     |     |     |             |     |     |  |
| D-25,960       |  | 70.6                           | 47.7                        | 3.9            | .71     | 11.5                 | 36.6                  | 34.4  | 2                    | 3                 | 15.4                | 12.9            | 20.8     | 17.3  | 87.4    | 54.6                 | 29.2 | 73.9                    | 74.8 | 85                        | 16A                    | 7.0          |      |      |     |            |     |     |     |             |     |     |  |
| USA -          |  |                                |                             |                |         |                      |                       |       |                      |                   |                     |                 |          |       |         |                      |      |                         |      |                           |                        |              |      |      |     |            |     |     |     |             |     |     |  |
| 25,962         |  | 81.0                           | 54.7                        | 3.2            | 1.01    | 21.5                 | 49.8                  | 45.2  | 37                   | 25                | 22.0                | 11.5            | 300+     | 300+  | 94.5    | 300+                 | 300+ | 78.8                    | 78.6 | 300+                      | 9A                     | 22.4         |      |      |     |            |     |     |     |             |     |     |  |
| USA -          |  |                                |                             |                |         |                      |                       |       |                      |                   |                     |                 |          |       |         |                      |      |                         |      |                           |                        |              |      |      |     |            |     |     |     |             |     |     |  |
| 25,964         |  | 183.8                          | 124.0                       | 8.1            | .89     | 78.0                 | 134.4                 | 178.0 | 77                   | 25                | 83.5                | 29.4            | 256.4    | 288.8 | 95.5    | 34.4                 | 35.8 | 90.2                    | 90.3 | 300+                      | 18A                    | 6.6          |      |      |     |            |     |     |     |             |     |     |  |
| England -      |  |                                |                             |                |         |                      |                       |       |                      |                   |                     |                 |          |       |         |                      |      |                         |      |                           |                        |              |      |      |     |            |     |     |     |             |     |     |  |
| 25,965         |  | 80.4                           | 54.2                        | 4.3            | .74     | 24.4                 | 75.6                  | 88.8  | 317                  | 52                | 32.2                | 12.1            | 177.5    | 139.6 | 92.0    | 11.3                 | 22.4 | 83.1                    | 82.3 | 300+                      | 18A                    | 5.3          |      |      |     |            |     |     |     |             |     |     |  |
| C-25,969       |  |                                |                             |                |         |                      |                       |       |                      |                   |                     |                 |          |       |         |                      |      |                         |      |                           |                        |              |      |      |     |            |     |     |     |             |     |     |  |
| G-25,970       |  | 28.5                           | 7.6                         | 1.7            | .64     | 7.7                  | 16.3                  | 16.3  | 40                   | 42                | 8.0                 | 5.1             | 45.6     | 33.3  | 56.2    | ---                  | ---  | 79.8                    | 79.7 | 300+                      | ---                    | 9.6          |      |      |     |            |     |     |     |             |     |     |  |
| L-25,971       |  | 30.7                           | 8.2                         | 2.3            | .52     | 5.9                  | 19.3                  | 25.2  | 16                   | 4                 | 8.1                 | 4.1             | 9.8      | 9.6   | 66.8    | ---                  | ---  | 71.1                    | 71.2 | 65                        | ---                    | 3.0          |      |      |     |            |     |     |     |             |     |     |  |
| Q-25,972       |  | 30.8                           | 8.2                         | 2.3            | .53     | 4.2                  | 19.9                  | 28.8  | 8                    | 1                 | 7.0                 | 3.4             | 4.4      | 3.8   | 69.5    | ---                  | ---  | 75.9                    | 75.3 | 45                        | ---                    | 8.0          |      |      |     |            |     |     |     |             |     |     |  |
|                |  | 30.6                           | 8.1                         | 2.1            | .58     | 3.7                  | 12.8                  | 17.2  | 4                    | 0                 | 5.7                 | 3.5             | 20.7     | 19.5  | 72.0    | ---                  | ---  | 60.6                    | 60.0 | 135                       | ---                    | 5.2          |      |      |     |            |     |     |     |             |     |     |  |
| C-25,959       |  |                                |                             |                |         |                      |                       |       |                      |                   |                     |                 |          |       |         |                      |      |                         |      |                           |                        |              |      |      |     |            |     |     |     |             |     |     |  |
|                |  | 46.5                           | 31.4                        | 2.4            | .77     | 13.2                 | 25.2                  | 25.4  | 19                   | 14                | 13.8                | 7.6             | 78.5     | 86.0  | 75.5    | 40.0                 | 18.4 | 82.0                    | 81.6 | 131                       | ---                    | 14.8         |      |      |     |            |     |     |     |             |     |     |  |

1/Those with a single letter preceding numbers were manufactured in the Philippines.

2/Tests made according to TAPPI Standard Methods except as noted.

3/Trade size for onion skin is 500 sheets, 17 by 22 inches, and for the other papers it is 500 sheets, 25 by 38 inches.

4/MD = Machine direction; CD = Cross direction



Table 6.--Properties of miscellaneous types of paper manufactured in or imported into the Philippines

| Sheet properties <sup>1/</sup> |                 |                   |                   |         |                      |                  |                       |     |                      |      |                     |                 |          |       |         |      |                           |      |           |     |      |      |
|--------------------------------|-----------------|-------------------|-------------------|---------|----------------------|------------------|-----------------------|-----|----------------------|------|---------------------|-----------------|----------|-------|---------|------|---------------------------|------|-----------|-----|------|------|
| Identification <sup>2/</sup>   | Weight          |                   | Thick-<br>ness    | Density | Bursting<br>strength |                  | Tearing<br>resistance |     | Folding<br>endurance |      | Tensile<br>strength |                 | Porosity |       | Opacity |      | Turpentine<br>penetration |      | Cobb size |     |      |      |
|                                | Square<br>meter | 24 by 36 -<br>500 |                   |         | Pts                  | MD <sup>3/</sup> | CD <sup>3/</sup>      | G   | G                    | MD   | Double<br>folds     | Double<br>folds | P.i.w.   | MD    | CD      | Wire | Felt                      | Pct  | Sec       | Sec | Wire | Felt |
|                                |                 |                   |                   |         |                      |                  |                       |     |                      |      |                     |                 |          |       |         |      |                           |      |           |     |      |      |
|                                |                 |                   |                   |         |                      |                  |                       |     |                      |      |                     |                 |          |       |         |      |                           |      |           |     |      |      |
| G                              | Lb              | Mils              | G/cm <sup>3</sup> | G       | G                    | G                | G                     | G   | G                    | G    | G                   | G               | G        | G     | G       | G    | G                         | G    | G         | G   |      |      |
| KRAFT PAPER                    |                 |                   |                   |         |                      |                  |                       |     |                      |      |                     |                 |          |       |         |      |                           |      |           |     |      |      |
| Q-25,982                       | 34.8            | 21.4              | 2.8               | 0.48    | 6.7                  | 27.4             | 34.2                  | --- | ---                  | 8.6  | 3.8                 | 5.2             | 6.2      | 85.0  | ---     | ---  | ---                       | 9.8  | 10.2      |     |      |      |
| P-25,981                       | 59.2            | 36.3              | 4.7               | .50     | 15.9                 | 54.6             | 74.4                  | --- | ---                  | 20.2 | 9.4                 | 14.0            | 14.1     | 97.8  | ---     | ---  | ---                       | 15.3 | 15.5      |     |      |      |
| O-25,980                       | 69.6            | 42.7              | 4.3               | .64     | 31.0                 | 96.8             | 100.0                 | --- | ---                  | 29.4 | 13.3                | 46.1            | 45.0     | 92.5  | ---     | ---  | ---                       | 24.6 | 24.7      |     |      |      |
| SACK GRADE                     |                 |                   |                   |         |                      |                  |                       |     |                      |      |                     |                 |          |       |         |      |                           |      |           |     |      |      |
| N-25,979                       | 66.6            | 40.9              | 5.1               | .51     | 30.4                 | 105.6            | 102.8                 | --- | ---                  | 24.7 | 14.7                | 22.4            | 20.1     | 93.6  | ---     | ---  | ---                       | 20.4 | 21.2      |     |      |      |
| MANILA PAPER                   |                 |                   |                   |         |                      |                  |                       |     |                      |      |                     |                 |          |       |         |      |                           |      |           |     |      |      |
| A-25,977                       | 60.8            | 37.4              | 3.6               | .66     | 16.0                 | 45.0             | 52.6                  | --- | ---                  | 15.6 | 9.9                 | 133.2           | 128.1    | 92.8  | ---     | ---  | ---                       | 25.0 | 23.4      |     |      |      |
| C-25,976                       | 60.4            | 37.1              | 3.2               | .73     | 16.3                 | 35.6             | 39.8                  | --- | ---                  | 16.5 | 7.9                 | 157.4           | 156.3    | 90.5  | ---     | ---  | ---                       | 19.6 | 24.5      |     |      |      |
| E-25,978                       | 106.9           | 65.7              | 7.0               | .60     | 46.2                 | 141.6            | 197.6                 | --- | ---                  | 26.3 | 16.3                | 28.6            | 32.2     | 100.0 | ---     | ---  | ---                       | 29.3 | 24.1      |     |      |      |
| GREASEPROOF AND GLASSINE       |                 |                   |                   |         |                      |                  |                       |     |                      |      |                     |                 |          |       |         |      |                           |      |           |     |      |      |
| USA-25,975                     | 33.8            | 20.8              | 1.6               | .82     | 14.0                 | 10.5             | 11.0                  | 109 | 106                  | 15.0 | 7.6                 | 1,084           | 1,062    | ---   | ---     | ---  | ---                       | 90   | ---       |     |      |      |
| C-25,973                       | 41.6            | 25.5              | 2.1               | .77     | 13.2                 | 18.7             | 22.2                  | 109 | 24                   | 12.4 | 6.9                 | 1,765           | 1,213    | ---   | ---     | ---  | ---                       | 15   | ---       |     |      |      |
| USA-25,974                     | 39.3            | 24.1              | 1.4               | 1.14    | 19.6                 | 14.9             | 17.5                  | 708 | 514                  | 20.8 | 10.0                | 4,767           | 5,688    | ---   | ---     | ---  | ---                       | 60   | ---       |     |      |      |

1/Tests made according to TAPPI Standard Methods except as noted.

2/Those with a single letter preceding numbers were manufactured in the Philippines.

3/MD = Machine direction and CD = Cross direction.



Table 7.--Properties of boards manufactured in or imported into the Philippines

| Identification <sup>3/</sup> | Sheet properties <sup>1/</sup> |                  |                |                   |                      |                       |                  |                      |       |                         | Tensile strength <sup>2/</sup> |                  |       |                              |                              |                          |      |      |    |                       |                         |
|------------------------------|--------------------------------|------------------|----------------|-------------------|----------------------|-----------------------|------------------|----------------------|-------|-------------------------|--------------------------------|------------------|-------|------------------------------|------------------------------|--------------------------|------|------|----|-----------------------|-------------------------|
|                              | Weight                         |                  | Thick-<br>ness | Density           | Bursting<br>strength | Tearing<br>resistance |                  | Stiffness<br>(Taber) |       | Brightness<br>(Elrepho) |                                | Maximum strength |       |                              |                              | Modulus of<br>elasticity |      |      |    | Strain-to-<br>failure | Pycnometer<br>thickness |
|                              | Square<br>meter                | 3,000<br>sq. ft. |                |                   |                      | MD <sup>4/</sup>      | CD <sup>4/</sup> | MD                   | CD    | Wire                    | Felt                           | MD               | CD    | 1,000 <sup>2</sup><br>lb/in. | 1,000 <sup>2</sup><br>lb/in. | Pct                      | Pct  | MD   | CD |                       |                         |
|                              |                                |                  |                |                   |                      |                       |                  |                      |       |                         |                                |                  |       |                              |                              |                          |      |      |    |                       |                         |
|                              |                                |                  |                |                   |                      |                       |                  |                      |       |                         |                                |                  |       |                              |                              |                          |      |      |    |                       |                         |
|                              | G                              | Lb               | Mils           | G/cm <sup>3</sup> | Pts                  | G                     | G                | Pct                  | Pct   | Lb/in. <sup>2</sup>     | Lb/in. <sup>2</sup>            | Pct              | Pct   | 1,000 <sup>2</sup><br>lb/in. | 1,000 <sup>2</sup><br>lb/in. | Pct                      | Pct  | Mils |    |                       |                         |
| BOXBOARD                     |                                |                  |                |                   |                      |                       |                  |                      |       |                         |                                |                  |       |                              |                              |                          |      |      |    |                       |                         |
| J-26,003                     | 341.8                          | 209.9            | 16.9           | 0.80              | 95.7                 | 247.2                 | 364.8            | 159.0                | 63.0  | --                      | --                             | 5,890            | 2,250 | 1,157                        | 270                          | 2.09                     | 3.92 | 15.8 |    |                       |                         |
| M-26,004                     | 342.8                          | 210.5            | 17.9           | .75               | 76.8                 | 276.8                 | 496.8            | 216.0                | 60.0  | --                      | --                             | 5,290            | 1,540 | 881                          | 194                          | 1.46                     | 4.01 | 16.6 |    |                       |                         |
| O-26,005                     | 456.7                          | 280.4            | 22.9           | .79               | 121.6                | 344.0                 | 392.0            | 360.0                | 164.0 | --                      | --                             | 5,230            | 2,480 | 873                          | 277                          | 1.98                     | 4.87 | 22.0 |    |                       |                         |
| INDEX BOARD                  |                                |                  |                |                   |                      |                       |                  |                      |       |                         |                                |                  |       |                              |                              |                          |      |      |    |                       |                         |
| D-26,001                     | 137.9                          | 84.7             | 9.1            | .60               | 18.0                 | 71.2                  | 76.4             | 17.4                 | 8.4   | 68.5                    | 68.0                           | 3,000            | 1,620 | 556                          | 252                          | 1.02                     | 2.17 | 7.9  |    |                       |                         |
| D-25,998                     | 140.4                          | 86.2             | 8.3            | .67               | 19.6                 | 68.8                  | 74.8             | 17.0                 | 8.6   | --                      | --                             | 3,620            | 2,170 | 684                          | 342                          | .91                      | 1.84 | 7.4  |    |                       |                         |
| FILE FOLDER                  |                                |                  |                |                   |                      |                       |                  |                      |       |                         |                                |                  |       |                              |                              |                          |      |      |    |                       |                         |
| D-25,999                     | 190.1                          | 116.8            | 9.9            | .76               | 38.2                 | 95.2                  | 101.2            | 29.8                 | 18.6  | 40.4                    | 40.6                           | 4,490            | 2,760 | 714                          | 362                          | 1.39                     | 2.42 | 9.1  |    |                       |                         |
| D-26,000                     | 214.5                          | 131.7            | 13.4           | .63               | 32.0                 | 152.0                 | 168.4            | 54.2                 | 26.4  | 40.3                    | 39.6                           | 3,050            | 1,700 | 644                          | 261                          | 1.11                     | 2.10 | 12.2 |    |                       |                         |
| WHITE BRISTOL                |                                |                  |                |                   |                      |                       |                  |                      |       |                         |                                |                  |       |                              |                              |                          |      |      |    |                       |                         |
| USA-26,007                   | 137.3                          | 84.3             | 7.0            | .78               | 37.2                 | 82.8                  | 90.4             | 10.6                 | 6.6   | --                      | --                             | 5,020            | 3,290 | 634                          | 390                          | 2.22                     | 4.22 | 6.4  |    |                       |                         |
| FOLDCOTE                     |                                |                  |                |                   |                      |                       |                  |                      |       |                         |                                |                  |       |                              |                              |                          |      |      |    |                       |                         |
| USA-26,006                   | 222.5                          | 136.6            | 12.1           | .72               | 64.0                 | 217.6                 | 222.4            | 69.6                 | 35.6  | --                      | --                             | 5,420            | 2,700 | 1,070                        | 396                          | 1.59                     | 3.63 | 11.3 |    |                       |                         |
| CLAY COATED BOARD            |                                |                  |                |                   |                      |                       |                  |                      |       |                         |                                |                  |       |                              |                              |                          |      |      |    |                       |                         |
| Japan-26,008                 | 237.9                          | 146.1            | 12.5           | .75               | 56.6                 | 104.8                 | 214.4            | 92.0                 | 34.0  | --                      | --                             | 6,080            | 1,640 | 1,174                        | 240                          | 1.51                     | 3.62 | 11.7 |    |                       |                         |
| CHIPBOARD                    |                                |                  |                |                   |                      |                       |                  |                      |       |                         |                                |                  |       |                              |                              |                          |      |      |    |                       |                         |
| J-26,002                     | 480.9                          | 295.3            | 29.7           | .64               | 62.2                 | 290.4                 | 382.4            | 409.0                | 200.0 | --                      | --                             | 2,060            | 1,320 | 676                          | 256                          | .73                      | 2.03 | 26.6 |    |                       |                         |

1/Tests made according to TAPPI Standard Methods except as noted.

2/Tests made with a universal tester equipped with an electrical load cell.

3/Those with a single letter preceding number were manufactured in the Philippines.

4/MD = Machine direction and CD = Cross direction.



Table 8.--Properties of hardboards and particleboards manufactured in the Philippines

| Type of panel product                  | Thick-ness          | Static bending <sup>1/</sup> |                     |                           | Internal Tensile strength <sup>1/</sup> |                                   |                     | Dimensional movement <sup>2/</sup> |                                     |           |      |   |           |     |
|--|---------------------|------------------------------|---------------------|---------------------------|---|-----------------------------------|---------------------|------------------------------------|-------------------------------------|-----------|------|---|-----------|-----|
|  |                     | Density                      | Maximum load        | Modulus of rupture        | Modulus of elasticity                   | bond maximum stress <sup>1/</sup> | Maximum load        | Maximum stress                     | From 50 to 90 pct relative humidity |           |      | From 50 pct relative humidity to water soak |           |     |
|  |                     |                              |                     |                           |   |                                   |                     |                                    | Length                              | Thickness | Pct  | Length                                      | Thickness | Pct |
|  |                     |                              |                     |                           |   |                                   |                     |                                    |                                     |           |      |   |           |     |
| In.                                    | Lb/ft. <sup>3</sup> | Lb                           | Lb/in. <sup>2</sup> | 1,000 lb/in. <sup>2</sup> | Lb/in. <sup>2</sup>                     | Lb                                | Lb/in. <sup>2</sup> | Pct                                | Pct                                 | Pct       | Pct  | Pct   | Pct       | Pct |
| Hardboard - standard regular - smooth  | 3/16                | 63.9                         | 83                  | 6,990                     | 635                                     | 285                               | 1,490               | 4,980                              | 0.14                                | 7.01      | 0.33 | 22.04                                       |           |     |
| Hardboard - standard tempered - smooth | 3/16                | 64.8                         | 95                  | 8,550                     | 678                                     | 445                               | 2,050               | 7,070                              | .11                                 | 5.49      | .21  | 16.93                                       |           |     |
| Hardboard - stucco - embossed          | 3/16                | $\frac{3}{64}$ 64.0          | 37                  | ---                       | ---                                     | ---                               | 760                 | ---                                | .18                                 | 4.35      | .48  | 19.65                                       |           |     |
| Hardboard - diamond - embossed         | 3/16                | $\frac{3}{64}$ 64.0          | 52                  | ---                       | ---                                     | ---                               | 1,000               | ---                                | .13                                 | 5.17      | .38  | 16.45                                       |           |     |
| Particleboard                          | 3/8                 | 50.0                         | 87                  | 2,560                     | 411                                     | 26                                | 440                 | 750                                | .21                                 | 4.03      | --   | ---   |           |     |
| Particleboard                          | 1/2                 | 51.5                         | 131                 | 3,100                     | 493                                     | 85                                | 980                 | 1,300                              | .21                                 | 3.11      | --   | ---   |           |     |

<sup>1/</sup>Strength properties determined according to ASTM Standard D 1037-72a.

<sup>2/</sup>Dimensional movement determined on 1/2 by 6-in. specimens preconditioned 30 days at 50 pct relative humidity followed by 30-day exposure to 90 pct relative humidity and 80° F.

<sup>3/</sup>Nominal density.

<sup>4/</sup>Maximum stress determined on 1/2 by 6-in. specimens preconditioned 30 days at 50 pct relative humidity followed by 30-day exposure to 90 pct relative humidity and 80° F.



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